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EFFECTIVENESS OF THE CIVIL AVIATION SECURITY PROGRAM.(U)  
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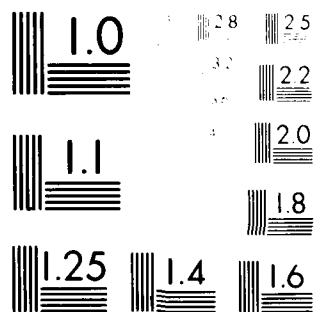
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FIFTH SEMI-ANNUAL REPORT TO CONGRESS  
ON THE  
EFFECTIVENESS OF THE CIVIL AVIATION SECURITY PROGRAM



JULY 1 - DECEMBER 31, 1976

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
CIVIL AVIATION SECURITY SERVICE



THE SECRETARY OF TRANSPORTATION  
WASHINGTON, D.C. 20590

April 5, 1977

Honorable Walter F. Mondale  
President of the Senate  
Washington, D.C. 20510

Dear Mr. President:

I am pleased to forward our Fifth Semi-Annual Report to Congress concerning the effectiveness of the Civil Aviation Security Program. This report, covering the period July 1 - December 31, 1976, is submitted in accordance with Public Law 93-366 signed by the President on August 5, 1974.

A report has also been sent to the Speaker of the House of Representatives.

Sincerely,

/signed/ Brock Adams

Brock Adams

Enclosure

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THE SECRETARY OF TRANSPORTATION  
WASHINGTON, D.C. 20590

April 5, 1977

Honorable Thomas P. O'Neill, Jr.  
Speaker of the House of Representatives  
Washington, D.C. 20515

Dear Mr. Speaker:

I am pleased to forward our Fifth Semi-Annual Report to Congress concerning the effectiveness of the Civil Aviation Security Program. This report, covering the period July 1 - December 31, 1976, is submitted in accordance with Public Law 93-366 signed by the President on August 5, 1974.

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## I. INTRODUCTION

This is the Fifth Semi-Annual Report to Congress on the Effectiveness of the Civil Aviation Security Program. It covers the six-month period July 1 - December 31, 1976, and is submitted pursuant to Section 315(a) of the Federal Aviation Act as amended by the Air Transportation Security Act of 1974 (Public Law 93-366).

The report includes an analysis of the current threat against civil aviation along with information regarding hijacking attempts, security incidents, bomb threats, and passenger screening activity. It also summarizes ongoing activities to assure adequate protection of civil air commerce against hijacking/sabotage and related crimes, and other aspects of the Civil Aviation Security Program.

## II. EXECUTIVE SUMMARY

The Threat. Continuing acts of aircraft hijacking and sabotage, coupled with increasing acts of terrorism, especially in Europe, the Middle East and South America, indicate that the threat of air piracy and aviation sabotage remains significant throughout the world. Contributing to the seriousness of the threat is the continuing cooperation between terrorist organizations in various parts of the world. Current estimates show that sabotage constitutes a severe and increasing danger to civil aviation.

Incidents. The first successful hijacking of a scheduled U.S. air carrier aircraft in 46 months--since November 10, 1972--occurred September 10, 1976, when five Croatian Nationalists took over a TWA jetliner shortly after takeoff from New York's La Guardia Airport. This was the first international terrorist-type hijacking in the United States. After more than 30 hours the hijackers were taken into custody in Paris and immediately returned to the U.S. where they are facing Federal and State charges.

There was also one unsuccessful U.S. air carrier hijacking during this period. This involved a United Air Lines jet on December 21 when a disgruntled UAL employee held two other employees hostage on the aircraft for some 14 hours. He eventually surrendered and was taken into custody.

In comparison with the U.S. record, there were seven foreign air carrier hijackings--three of which were successful.



On July 2, 1976, an explosion destroyed an Eastern Air Lines aircraft at Boston's Logan International Airport. In addition to this act of sabotage and several less serious acts, over 1100 bomb threats were directed against U.S. aircraft and airports. These threats resulted in many searches, evacuations, flight delays and diversions.

Perhaps the best evidence of the effectiveness of airline and airport security measures is the number of hijackings and related crimes prevented. While this number cannot be determined with certainty, the circumstances involved in at least five incidents support a judgment that the persons involved intended to commit hijackings or related crimes and were prevented from doing so by the security procedures in effect.

Passenger Screening. Additional evidence of program effectiveness is found in the results of current passenger screening procedures which continue to prevent weapons and dangerous articles from being carried aboard aircraft. During the period covered by this report, 859 handguns were detected in the screening process. In 462 cases, firearms were detected under circumstances which led to the arrest of individuals involved. Of those arrested, 452 were charged with violations of local laws and 10 were charged with violations of Federal statutes. Although the number of firearms detected decreased, the number of associated arrests increased.

Ironically, the successful hijacking of the TWA aircraft in September strengthened the conclusion that the screening procedures are capable of meeting the current threat. Based on information learned after the hijacking, including admissions from the hijackers, it is apparent that their actions did not involve a compromise of passenger screening procedures. The hijackers reportedly devoted months to the planning of their crime and concluded they could not successfully penetrate the system with real or even simulated weapons.

Since the current passenger screening procedures began in 1973, there has not been a substantial reduction in the number of weapons detected which indicates that many weapons are still being carried in airports. Consideration is being given to include a provision in the airport security regulation which would prohibit the introduction of unauthorized weapons and explosives into airport terminals.

It is hoped that such a provision, coupled with a public education program, will reduce the number of weapons in the aviation environment.

Security Actions. Several program areas discussed in the previous report, such as explosives security surveys and seminars, explosives detection dog teams and the checked baggage screening, continued to enhance the overall Civil Aviation Security Program.

A complete revision of the regulation that established basic airport security requirements is currently underway. One of the more significant revisions under study is an alternative approach to the present requirement for law enforcement presence at each passenger screening point. This approach, under consideration, would enable the law enforcement officers to provide protection and support to the entire terminal complex in addition to maintaining the passenger screening point as a focus of attention.

A review of security training provided employees and agents of the airlines was conducted after the September TWA hijacking. An updated and expanded training program for passenger screening activities is being developed and will be distributed to the airlines upon completion.

Also, contributing to the consistency and effectiveness of industry-wide security procedures, U.S. air cargo operators became subject to security regulations. Two of the three scheduled U.S. air cargo operators have adopted security programs.

Three sections of the security regulation pertaining to foreign air carriers operating scheduled passenger operations to, from and within the United States were amended to improve certain aviation security standards and procedures. One amendment requires x-ray units used by foreign airlines to check carry-on items at U.S. airports to meet the same safety and performance standards established for x-ray equipment used by U.S. airlines.

In the research and development field, efforts that were accelerated after the tragic explosion at La Guardia Airport in December 1975 continued. Emphasis is being placed on producing a future generation of equipment to efficiently and effectively detect explosives in checked baggage, cargo and on aircraft and in airports.

Government and industry representatives, along with international organizations, continued efforts to seek implementation of effective civil aviation security programs by all nations. In September the President approved an International Air Transportation Policy of the United States which indicates the United States supports and seeks adoption by the International Civil Aviation Organization of even stronger security measures.

Conclusion. The estimates and actions reflected in this report indicate the current airline and airport security procedures are providing a higher level of safety and security than ever before. Passenger reactions indicate that the security procedures have not only gained public acceptance, but that they are desired and expected in the interest of aviation safety. The challenge to maintain the U.S. record of success and to seek ways to improve the system will be met by the continuing teamwork within the aviation community.

### III. CURRENT THREAT AGAINST CIVIL AVIATION

Aircraft hijackings and sabotage, including acts of terrorism, continue to be significant throughout the world with the level of danger to lives and property remaining high.

Over the years, the nature of hijackings of U.S. aircraft evolved from those carried out by "homesick Cubans" to those committed by fleeing criminals. In between have been hijackings by the mentally deranged, some of whom appeared bent on suicide; criminal extortionists who sought monetary gain; and politically motivated individuals protesting what they believed to be social and economic inequities of society and the "establishment." More recently, the first hijacking by organized terrorists against civil aviation in the U.S. occurred when a group of Croatian nationalists successfully commandeered a TWA jetliner on September 10, 1976. This was the first international terrorist-type hijacking in the U.S., and the first successful hijacking of a U.S. air carrier aircraft in 46 months--since November 10, 1972.

Terrorism has increased worldwide over the past several years. Explosives have been planted aboard aircraft, armed attacks have been directed against airports and airline offices, aircraft have been hijacked, and passengers have been killed and injured.

During the past few years, there appears to be an increase in cooperation between terrorist organizations in various parts of the world. Alliances have been established and developed between the Popular Front for the Liberation of Palestine (PFLP), the Japanese Red Army (JRA), the West German Baader-Meinhof Gang, and among guerrilla groups in South America (Argentina, Bolivia, Chile and Uruguay). These alliances are evidenced by such joint operations as the June 27, 1976, Air France hijacking out of Athens, Greece, in which a West German, a Turkish woman and Arabs participated; an explosion at Ben Gurion Airport in Tel Aviv, Israel, on May 25, 1976, in which a German carried a suitcase of explosives; training of Dutch nationals by Arab terrorists in 1976; and the December 21, 1975, raid on the Vienna OPEC meeting in which Arabs and West Germans participated and which was allegedly masterminded by the notorious "Carlos," a Venezuelan. Mutual training and financial assistance, and exchange of weaponry and technical aid, contribute to the impact of these alliances. As a result, smaller terrorist groups have been provided the resources to undertake far more serious operations than they would normally be capable of conducting.

The current threat may then best be summed up in the words of a Resolution on Aviation Security, adopted by the International Air Transport Association at its 32nd Annual General Meeting in Singapore in November 1976, which says "The recent upsurge in incidents of unlawful interference indicates that considerable efforts have still to be made by governments and industry to improve security at airports. Civil aviation remains a particularly vulnerable target for those engaged in the taking of hostages and other acts endangering the lives and security of innocent members of the travelling public, airline pilots and staff and other transport workers and the equipment and/or other property utilized by them."

The greatest danger remains in Europe, the Middle East and South America where terrorist groups have strengthened their coordination and contacts with other revolutionary groups, thus increasing the possibility of terrorism and other criminal acts against international targets, including acts by one organization on behalf of another. This is not to imply that a terrorist operation cannot be planned and carried out in the U.S. A recent study by another government agency contends there is a good chance that in

the next few years foreign-linked terrorists increasingly will be tempted to stage major actions within the U.S. The recent TWA hijacking by Croatian emigres could be the beginning of such a premise.

While the hijacking threat persists, sabotage constitutes a severe and increasing threat to civil aviation. Worldwide, during 1976, 227 lives were lost and 200 persons injured in 55 incidents involving civil aviation. These incidents included 2 in-flight explosions that killed 170 persons; 7 hijack-related incidents in which 47 were killed and 65 injured; 2 airport explosions that killed 5 persons and injured 110; and 2 attacks against 2 airports accounting for the deaths of 5 individuals and injuries to 17 others. Fifteen of the 55 incidents occurred in the U.S. and resulted in 2 deaths and 3 injuries. This compares to the 1974 record of 62 incidents involving civil aviation, worldwide, resulting in 170 deaths and 59 injuries; and in 1975, 64 incidents resulting in 88 deaths and 162 injuries.

During the last six months of 1976, a total of 28 criminal acts involving civil aviation occurred worldwide and resulted in 97 deaths and 124 injuries. Nine of these acts were hijackings; 11 consisted of explosions at airports, on aircraft, or at airline offices; 1 involved a live explosive device found at an airport; 1 involved a terrorist attack at an airport; and there were 6 other incidents involving aircraft or aviation facilities. By comparison, during the first six months of 1976, 27 criminal acts against civil aviation worldwide resulted in 130 deaths and 76 injuries. The 27 incidents included 9 hijackings, 7 explosions, 2 live explosive devices that were discovered at airports, 2 terrorist attacks at airports, and 7 other criminal acts. The comparison shows that the number and types of criminal acts involving civil aviation were almost equally distributed throughout the two 6-month periods in 1976. (See Exhibit 1)

#### IV. INCIDENTS DURING REPORTING PERIOD

Hijacking, sabotage and threats of criminal acts directed against U.S. civil aviation during the last six months of 1976 are described below:

Hijackings - The first successful hijacking of a U.S. air carrier aircraft in the 46 months since November 10, 1972, occurred September 10, 1976. There was also one unsuccessful attempt to hijack an air carrier aircraft. There were no general aviation hijackings during this period.

- o Air Carrier Aircraft - In comparison to the two U.S. air carrier hijackings there were seven foreign air carrier hijackings, three of which were successful. The number of U.S. and foreign air carrier hijackings increased over the first six months of 1976 when there were no attempts against U.S. air carriers and six foreign air carrier hijackings. (See Exhibits 2 & 4)
- On September 10, five hijackers (four men and a woman) successfully hijacked a Trans World Airlines jetliner shortly after takeoff from New York's La Guardia Airport. The hijackers, members of a Croatian nationalist organization, carried a number of innocent and harmless items on their persons and in their carry-on luggage through the screening point. Not until the flight was airborne did they assemble the material into realistic but simulated bombs. After taking control of the aircraft and indicating they wished to be flown to Europe, the hijackers advised the captain that an explosive was located in a particular locker at Grand Central Station in New York, together with additional instructions and demands. When the locker was opened a real bomb was found. Tragically, in handling the bomb, one officer of the New York Police Department Bomb Squad was killed and three others seriously wounded. The prime objective of the hijackers was to achieve maximum publicity for their cause--the independence of Croatia from Yugoslavia. After more than 30 hours and stops in Montreal, Canada; Gander, Newfoundland; and Keflavick, Iceland, the hijackers finally surrendered to French authorities in Paris. They were immediately returned to the U.S. and arraigned in Federal court on charges of air piracy and in a New York court on charges of murder.
- On December 21 a disgruntled airline employee who had been on extended sick leave entered the United Air Lines maintenance area at San Francisco, California, and at gunpoint forced two other employees on board a parked United aircraft. He demanded the aircraft be fueled and a crew and food be brought aboard. After all night negotiations the hijacker surrendered to law enforcement authorities and was taken to a hospital for observation. The only injury was to one hostage who was cut on the arm by the hijacker.

- o General Aviation Aircraft - There were no general aviation hijackings during this period. There were two general aviation hijacking attempts, both unsuccessful, during the first six months of 1976. Evidence that the threat of general aviation hijackings persists is illustrated in the following incident in which all of the elements were present for an armed attack against an aircraft. The incident was stopped short of an overt attempt by the vigilance of potential victims, fast communications and rapid law enforcement response.
- On September 22 a man approached a passenger screening checkpoint and asked where he could find a private pilot or airplane. He was directed to the local air taxi and commercial aviation company at the airport. After arriving at the office he reportedly made irrational statements about his need to get secret information to Washington, D.C., and about fear for his life from a Communist conspiracy. Because of his suspicious actions, a local police officer was summoned and upon search a loaded .22 caliber revolver was found strapped to the inside of the man's arm. Additional ammunition was also found in his pockets. He was placed in a state mental hospital. (See Exhibit 3)

Aircraft/Airport Sabotage - Summaries of four sabotage incidents involving U.S. aircraft and airports during this reporting period follow:

- o On July 2 an explosion destroyed an Eastern Air Lines aircraft parked at Boston's Logan International Airport. An airline employee was injured by the blast which occurred moments after an anonymous caller warned an airline switchboard operator that a bomb would explode at the airport. The bomb was placed under the right wheel housing of the aircraft which was parked near an airline maintenance hangar. Two days after the explosion two suspects were apprehended and in October two others were taken into custody. All four were charged with bombing the aircraft and with several other bombings in New England. The first of the four to go to trial was sentenced to 10 years in prison for his participation in the bombing. The motive for the bombing was to protest for the abolition of penal institutions.

- o On July 5 an explosive device (believed to be dynamite) caused extensive damage to a helicopter parked on a landing strip in Zortman, Montana. No suspects have been apprehended and the investigation into the explosion is continuing.
- o On July 13 a military grenade exploded on top of a sign near a general aviation facility at Salt Lake City International Airport, Utah. The explosion caused damage only to the sign but other acts of vandalism damaged numerous general aviation aircraft during the same night. No suspects have been apprehended.
- o On September 1 a Molotov cocktail-type device, consisting of a kerosene-filled bottle with a firecracker in the bottle's neck, was found in a maintenance person's cleaning cart at New Orleans International Airport. No suspects have been identified.

Bomb Threats - Threats involving the use of explosives against aircraft and airports in the U.S. decreased by 41 percent over the previous reporting period. There were 802 bomb threats reported against aircraft and 312 against airports during the last six months of 1976. These figures represent a 30 percent decrease in aircraft bomb threats and a 57 percent decrease in airport bomb threats over the January-June 1976 reporting period. Although this appears to be a significant decrease, the extremely high number of threats recorded during the first half of 1976 must be considered. The increase in threats received in early 1976 was due mainly to the wide publicity given to the bomb explosion at La Guardia Airport on December 29, 1975. For example, in the first week of January 1976 over 300 threats directed against airports and aircraft across the nation were reported--almost one-third as many as were reported during the entire second half of 1976.

Bomb threats have increased each year since 1973. For example, in 1976 there were 587 more bomb threats against airports and 97 more bomb threats against aircraft than in 1975. As seen in Exhibits 5 & 6, actual explosions precipitate an increase in the number of threats received. After the increase in early 1976, bomb threats against aircraft returned to a pattern more consistent with previous periods and remained fairly consistent through the latter half of 1976. Nineteen of the threats during this reporting period were accompanied by extortion demands on the airlines or airports involved. (See Exhibits 5 & 6)



In previous reports it was recognized that many of the bomb threats against aircraft are made at the passenger screening points by persons attempting to be humorous and frequently are made in a manner which make them inherently unbelievable. To obtain a more accurate picture of the significance of bomb threats, a distinction has been made between frivolous-type threats and the more serious threats. A separate analysis of serious threats, as defined in Exhibit 5, provides a more accurate account of the adverse effects on the aviation industry.

An analysis of bomb threats against aircraft from July-December 1976 indicates there were 323 in the serious category, representing about 40 percent of the 802 total. This percentage is consistent with the 37 and 39 percent reported in the two previous periods. About 87 percent (256) of the serious threats were received telephonically. The others were made either verbally at screening points or other locations, or in a written or visual form. The threats resulted in at least 160 reported flight delays or diversions and at least 225 aircraft searches, each contributing to passenger inconvenience and disruption of airline operations. The threats were not concentrated against any particular airline--they involved 49 air carriers, including 20 foreign. Twenty-eight, or about 9 percent, of the serious threats were directed against foreign air carriers.

Almost all of the 312 bomb threats against airports had to be taken seriously since 90 percent were received under circumstances that made immediate evaluation difficult. These threats resulted in at least 40 evacuations of airport facilities, at least 230 searches and contributed to at least 10 air carrier flight delays. The threats involved 83 airports across the nation.

Aircraft and airport bomb threats resulted in 56 reports of persons arrested under Federal or local statutes. Forty-five resulted in local charges against the subjects and 11 in Federal charges. Three of the 11 Federal cases resulted in the individual involved being confined or placed on probation; 2 cases were dismissed and the prosecutive disposition of the remaining 6 Federal cases has not yet been reported.

Possible Hijackings or Related Crimes Prevented -

The number of hijacking attempts or other crimes against civil aviation prevented or deterred as a result of airline and airport security procedures cannot be determined with certainty. However, the number of firearms detected at passenger screening points under suspicious circumstances and the number of individuals apprehended while attempting to gain unauthorized access to aircraft indicate that some of these individuals were intent on committing a crime. In at least five incidents it appears the individuals involved intended to commit a crime against aviation and were prevented from doing so by airline and airport security procedures. This makes a total of 70 possible hijackings or related crimes that may have been prevented since January 1974-- strong evidence of the effectiveness of the security measures in use. The five incidents referred to in this reporting period are summarized as follows: (See Exhibit 7)

- 12/23/76  
GUEPREFD  
APKINFA, MA
- o A female passenger alarmed the walk-through weapons detector and was asked to remove all metal from her person and walk through the detector again. After removing her coat the passenger walked through and alarmed the detector a second time. After a third alarm she was searched using a hand-held metal detector. A .22 caliber pistol was discovered concealed down the inside of her slacks. During interviews she claimed to be an illegal alien and not aware of the laws concerning carriage of weapons aboard aircraft. She pled guilty to the Federal offense of attempting to carry a weapon aboard aircraft and was sentenced to 30 days in jail and fined \$500, both of which were suspended. She was placed on unsupervised probation for one year and returned to Mexico.

- 2/14/76  
ZUNIG  
APKINFA, MA
- o A .38 caliber revolver was found during the x-ray examination of a male passenger's carry-on overnight case. Upon discovery of the weapon the man ran and was chased and apprehended by the police officer on duty at the screening point. During questioning he said he was told at the airline ticket counter that he was too late to check his baggage and that he should carry all of his baggage on board with him. However, interviews with the airline agents at the ticket counter indicated that

the man did not attempt to check any items. He pled guilty to the Federal offense of attempting to carry a weapon aboard aircraft and was sentenced to one year in custody, which was suspended, plus three years probation.

- 11/1/76  
R/PVP  
SP-1-100
- o A male passenger alarmed a walk-through weapons detector and was asked to remove all metal from his person. He removed his watch and walked through the detector, again alarming it. He said he had no other metal objects but then said he had a pistol. He was searched by the police officer on duty who discovered a 9mm automatic pistol under the passenger's jacket and shirt tied to his upper left side by strips of cloth. The man was preparing to board a flight to Mexico and stated he had concealed the gun in an attempt to avoid detection by Mexican authorities. He was arrested on local concealed weapons charges and failed to appear for his preliminary hearing. A warrant for his arrest has been issued.

- 11/30/76  
LOPEZ-NUNEZ  
DETROIT
- o After a male passenger had twice alarmed a walk-through weapons detector, a hand-held detector was used to discover a .38 caliber revolver strapped between his shoulder blades under his shirt. During questioning he claimed he was aware that baggage was searched but did not know that weapon detectors were used to screen all passengers. The subject, an alien, was charged with the local offense of carrying a concealed weapon and was subsequently deported to Mexico.

- 9/1/76  
P/PVP  
FD
- o A .357 magnum revolver was discovered concealed behind the belt of a passenger who had activated the walk-through weapons detector. He was arrested on local concealed weapons charges. He was found guilty and sentenced to one year court supervision.

#### V. EFFECTIVENESS OF PASSENGER SCREENING PROGRAM

The screening of all passengers and their carry-on items by the airlines, coupled with the presence of local law enforcement officers arranged by the operators of air carrier airports, continues to be a major cornerstone of the defenses against aircraft hijacking and sabotage. In spite of the unfortunate September 10 hijacking of a TWA jetliner, the results of the passenger screening procedures continue to reflect the success and effectiveness

of airline and airport security programs. In fact, the actions of the TWA hijackers tend to strengthen this conclusion. The hijackers reportedly devoted months to the planning of their crime, including careful study of the security procedures at La Guardia Airport. They apparently concluded they could not penetrate the screening system with real or even simulated weapons. Instead, they resorted to an assortment of innocent and harmless items which were assembled and disguised as weapons on board the aircraft. But, even these items were inspected in the screening process and cleared because they were not dangerous.

Screening equipment used by the airlines continues to consist of walk-through weapons detectors for individuals and x-ray inspection systems for carry-on items, especially at high-volume stations. The airlines are continuing efforts to improve the screening equipment and to minimize any passenger delays and inconvenience. (See Exhibits 8 & 9)

The system is not infallible. However, its effectiveness is clearly demonstrated by the passing of 46 months from November 10, 1972, to September 10, 1976, without a successful hijacking of a U.S. air carrier. During that period, almost one billion passengers and their carry-on items were processed through the screening system. During the same 46-month period there were 22 successful hijackings of foreign air carriers throughout the world. The outstanding U.S. air carrier record is even more significant when it is considered that U.S. aviation activity is roughly comparable to the activity of the rest of the free world combined. Passenger reactions continue to indicate that the security procedures have not only gained public acceptance, but that they are desired and expected in the interests of aviation safety.

All evidence indicates that the effectiveness of the passenger screening program, dramatically demonstrated from its inception in 1973, has continued. In 1972, the year before the implementation of the strengthened security measures, there were 27 hijacking attempts against U.S. air carrier aircraft, 8 of which were successful. Six people lost their lives, including 4 would-be hijackers. In 1973 there was 1 hijacking attempt against a U.S. scheduled air carrier; in 1974 there were 3; in 1975 there were 6; and in 1976 there were 2. Since January 1973 over 13,000 firearms have been detected during the passenger screening procedures and over 10,000 arrests have been made for violations of law detected by the screening system.

During this reporting period more than 222 million persons (passengers and non-passengers) were processed through the airline screening points at the nation's airports. Reporting and analytical procedures relating to the detection of items during the screening process are being further refined to focus attention and resources on those weapons and dangerous devices considered to present the greatest threat to aviation security. Specifically, the analysis of passenger screening activities concentrates on the detection of firearms and explosive/incendiary devices along with related intelligence, arrest and prosecutive information.

The detection of 1096 firearms, including 859 handguns, indicates a significant decrease over the 2840 firearms reported as detected during the previous reporting period. However, as shown on Exhibit 10, this decrease is due primarily to a refinement of reporting procedures relating to the "other firearms" category which includes such things as starter pistols, flare pistols, and BB guns. The 859 handguns detected represents an 18 percent decrease from the 1054 detected during the previous six-month period. A yearly comparison shows that the 1913 handguns detected in 1976 represents only a 4 percent decrease from the 1993 detected in 1975. Of the 859 handguns detected during this period, 80 percent (687) were found by x-ray inspection of carry-on items, 10 percent (86) by physical search of carry-on items and 10 percent (86) by weapons detector screening of individuals. (See Exhibit 10)

Although there was a decrease in the number of firearms detected, the 462 incidents in which firearms were detected under circumstances which led to the arrest of individuals under Federal or local statutes constitutes an increase of 9 percent over the previous six months. These 462 arrests occurred in the operations of some 20 U.S. air carriers at 64 airports. Twenty-one large hub airports (e.g. Los Angeles, Atlanta, and Chicago) accounted for 305 or 66 percent of the arrests, and 19 medium hub airports (e.g. Memphis, Nashville, and Indianapolis) for 119 or 26 percent. The other 38 arrests occurred at 24 small and non-hub airports (e.g. Oakland, Little Rock, and Knoxville).

The 462 reported firearms arrests include 452 cases in which local charges were filed against the persons involved and 10 cases in which Federal criminal charges were filed. Of the 452 local cases, 61 resulted in fines or penalties of confinement, probation or supervision. Charges were dismissed

in 59 cases and the prosecutive disposition of the remaining 332 local cases has not yet been reported. The 10 Federal cases resulted in 4 convictions with sentences including confinement, fines, and/or probation. One Federal case was reported to have been dismissed and the disposition of the remaining 5 has not yet been reported.

VI. CIVIL AVIATION SECURITY ACTIONS

Airport and airline security measures continue to yield dividends in increased safety and protection for air travelers, air crewmembers, scheduled airlines and air carrier airports. These measures cover 35 United States and 69 foreign airlines operating some 15,000 flights each day to or from 570 U.S. and foreign airports and enplaning some 585,000 passengers and 800,000 pieces of carry-on baggage daily. The scope and magnitude of current security measures is depicted further in Exhibit 11.

The comprehensive U.S. Civil Aviation Security Program is one of shared and complementary responsibilities involving the Federal government, the airlines, the operators of the airports they serve, local law enforcement organizations, and the airline passengers. This design has produced a cooperative and effective program to meet past and current security needs, and the capability of responding to the changing level and nature of future threats.

(See Exhibits 11 & 12)

During this reporting period a number of significant actions were taken to maintain a high level of security for U.S. civil air commerce:

Airport Security - The high level of security awareness and vigilance has been maintained at U.S. air carrier airports. Airport operators continued to initiate actions to provide even better security and protection for people and property in airport terminals. Some of the contributing initiatives are highlighted below:

- o Explosives Security Surveys and Seminars - Following the tragic explosion at La Guardia Airport on December 29, 1975, concern for security at airports was expanded to encompass public areas of terminal buildings--many public lockers were moved into secure areas and surveillance was increased. Surveys and

seminars were conducted at U.S. air carrier airports to identify explosives security needs and to develop appropriate and effective countermeasures. The surveys produced short and long range recommendations for improved security of public locker facilities, baggage claim and makeup areas and other vulnerable locations. More than 800 seminars were attended by nearly 20,000 airport, airline and other interested personnel.

- o Explosives Detection Dog Teams - During 1972, in cooperation with the Law Enforcement Assistance Administration (LEAA), the FAA sponsored a program to strategically locate specially trained explosive detection dog teams in 20 key cities near major airports. The concept was to locate these teams so that threatened aircraft flying over the United States would not be more than one hour from this emergency support. During 1975 two of the original 20 cities involved dropped from the program. During 1976, however, six additional cities joined the program, and in 1977 six more jurisdictions will enter the program to bring the total number of airports covered to 30.

The teams undergo an annual proficiency evaluation. These evaluations measure their ability in all phases of their performance, thus assuring a high standard of explosive detection surety. As previously reported, the 1976 annual evaluation revealed that the teams scored 99.2 percent in detecting various quantities and types of explosives in aircraft, ground vehicles and airport facilities. The evaluation also established the average times required for search of various areas of the airport environment. The third annual evaluation of these teams will be completed in early 1977 and an analysis of the results will be included in our next report. We expect the analysis to reveal the same high standards.

To date, in actual explosive detection missions the teams have discovered 28 explosive items in the course of 1348 actual aircraft, airport searches.

(See Exhibits 13 & 14)

- o Federal Aviation Regulations (FARs) Part 107 - A complete revision of the regulation that established basic airport security requirements is currently underway. The recondition will soon be made available for public comment through a Notice of Proposed Rule Making (NPRM). Many

refinements are proposed based on more than four years experience with the current regulation.

One of the more far reaching proposals will be an alternative approach to the requirement for law enforcement presence at air carrier airports. Since 1973, there has been a requirement for the presence of Law Enforcement Officers (LEOs) at passenger screening points. The police officers have assisted in identifying and evaluating dangerous articles found during the inspections, made arrests when appropriate and given greater confidence to the airline employees who are operating the screening system. Their support has been a valuable and effective deterrent to potential hijackers.

Under the rule change being considered, the LEO would no longer need to remain at the screening point, but would patrol in the airport, ready to respond immediately to any need. Adequate communications equipment would be required to assure a prompt response capability. With this approach, LEO presence would be available, and felt, throughout an airport terminal, rather than just at the screening point. Further, the required communications equipment would enable the LEO to respond more intelligently and more effectively, not only to the screening point, but to the other critical areas of the airport as well. Establishing this capability is of significant importance in the light of the ever increasing threat of terrorist attacks at an airport. Thus, this system, while providing a more efficient use of personnel, will also serve to enhance and broaden security coverage at our nation's airports.

It is recognized that the specific details of a flexible response system will vary from one airport to another, as such a system must be carefully tailored to meet the unique needs of each airport. Nevertheless, recognizing that it would be highly desirable to test a typical system in advance of adopting any rule changes, the Dallas/Fort Worth Regional Airport was granted an exemption to the current requirements of FAR Part 107 to allow the airport to design and install a flexible response operation. This action will enable FAA to evaluate a typical system as well as provide a guide for the development of systems suitable for other airports.



Another refinement that will be proposed for inclusion in a revised FAR Part 107 is a provision to forbid the introduction of unauthorized weapons into certain areas of the airport environment. This civil prohibition would complement criminal prohibitions currently effected by local ordinance or by state or Federal statutes. Coupled with public education efforts, it would also serve as an added effort to reduce the continuing large number of weapons brought to airports and detected in the passenger screening process.

- o Civil Aviation Security Training School - A special training program for local law enforcement officers assigned to support airline and airport security programs was established in 1973 at the Transportation Safety Institute in Oklahoma City. The current 8-day course provides in-depth coverage of civil aviation security requirements, procedures and techniques, including the necessity for courtesy and efficiency as well as professionalism and caution in the airline passenger screening system. Through December 31, 1976, 71 classes were conducted for 1493 students, including 1059 local police officers, 220 FAA security personnel, 27 representatives of other U.S. Government agencies, 20 aviation industry officials, as well as 167 foreign students. In addition to the formal classes at Oklahoma City, 11 special 2-day seminars, attended by 646 persons, have been conducted at 8 airports located at key cities across the nation.

Aircraft Security - The Air Carrier Standard Security Program, which became effective January 1, 1976, has been adopted by 31 U.S. airlines. Conscientious implementation of the procedures contained in the program by the airlines during the past year has resulted in a more efficient and uniform industry procedure and performance. The program, which was developed in coordination with the airlines, is designed to prevent or deter aircraft hijacking, sabotage and related criminal acts. Also, additional steps were taken to supplement existing security measures and to promote increased consistency and effectiveness in industry-wide security procedures.

- o Checked Baggage - The passenger checked baggage screening procedures which were put into use by U.S. airlines in April 1976 have continued to be effective with no significant passenger inconvenience or adverse

impact on airline operations. Although no explosives have been found, a number of apparent criminal acts have been uncovered including the movement of large sums of money, stolen guns, and varying amounts of narcotics. One instance resulted in apprehension of an individual wanted for first degree murder and other serious criminal charges.

- o Air Carrier Security Training - A review of security training provided employees and agents of the airlines was conducted after the September TWA hijacking. An updated and expanded training program for passenger screening activities is being developed and will be distributed to the airlines upon completion.
- o Air Taxi Commercial Operators - The number of commuter airlines who have voluntarily implemented FAA-approved security programs has risen to 23. The security procedures followed by these commuter airlines are consistent with those required of scheduled air carriers.
- o Air Cargo Operators - Two of the three scheduled air cargo operators have adopted FAA-approved security programs. The remaining cargo airline is in the process of developing an acceptable program.
- o Charter Flight Operators - Joint meetings between airlines operating charter flights and the FAA have been held to review and evaluate security measures and procedures currently in place and to determine any strengthening actions that may be needed for air charter passengers, air crewmembers and aircraft.
- o Cargo Acceptance and Handling Procedures - Indirect Air Carriers - In coordination with representatives of the air freight industry, procedures have been developed and implemented to prevent the introduction of explosive devices into cargo shipments carried in the air transportation system. These procedures are compatible with those of the scheduled passenger airlines and cover the transfer of shipments between air carriers.
- o Foreign Air Carriers - In October 1975, FAR 129 was amended to require foreign air carriers engaged in scheduled passenger operations conducted with large aircraft to, from and within the United States to use security programs similar to those used by U.S. air

carriers. Sixty-nine foreign air carriers conducting about 180,000 scheduled flights to and from the U.S. each year are currently covered by this regulation. These 69 carriers serve 31 U.S. airports from 107 foreign airports. Experience during this reporting period indicates the foreign air carriers are generally complying with the requirements.

Three sections of FAR 129 were recently amended to improve certain aviation security standards and procedures. In August the regulation was amended to require that x-ray units used by foreign airlines to check carry-on items at U.S. airports meet the same safety and performance standards established for x-ray equipment used by U.S. airlines. The two other amendments raised certain security standards of foreign air carriers, landing or taking off in the U.S., to those established for U.S. carriers.

- o Federal Air Marshals - Although widespread and routine use of Federal Air Marshals (Sky Marshals) was decreased in 1972-73 due to strengthened ground security measures, FAA has continued to maintain a cadre of selected and highly trained specialists to perform this function under special circumstances and on a limited basis. Maintenance of this cadre of specialists who have regular full-time security responsibilities also insures an essential nucleus in the event expansion of in-flight armed guard protection becomes necessary at any future date.

During the past two years, Federal Air Marshals have been used on six occasions. Their most recent use was in July 1976 when airline, Federal and local authorities believed that the circumstances surrounding a New York-Miami flight indicated that an attempt might be made to take over the aircraft in flight. Federal Air Marshals were assigned and, fortunately, the flight was completed without incident.

Each Federal Air Marshal is a Civil Aviation Security Inspector who, with full-time day-to-day duties, receives continuing intensive training at the FBI Academy. All are deputized as Special Deputy U.S. Marshals and each team is qualified in in-flight explosives security techniques.

- o Release of Security Information - On December 9, 1976, a new Part 191 of Federal Aviation Regulations became effective implementing section 316(d)(2) of the Federal Aviation Act of 1958, as amended by the Air Transportation Security Act of 1974. It restricts the release of certain types of security information obtained or developed in the conduct of research and development activities. Information subject to this new Part includes such matters as airport and air carrier security programs, hijacker profiles and profiles used in baggage screening.

Research and Development - Following the La Guardia bombing in December 1975, research and development efforts were accelerated to produce a future generation of equipment to efficiently and effectively detect explosives. Efforts continued in 1976 to develop techniques and equipment for the detection of explosives at airports, in checked baggage, in cargo and on aircraft. Guiding principles are that new equipment and procedures must be quick and effective. They must be reliable, easily maintained and operable by relatively unskilled personnel. They must not present any hazards to persons or the environment or damage luggage or its contents and airports, airlines and passengers must also be able to afford them.

All feasible systems and methods for detecting explosives are being explored. Some of the specific concepts under development include x-ray absorption, vapor detection, nuclear magnetic resonance and thermal neutron activation. The first model of an x-ray absorption system for checked baggage was used at Washington National Airport to gather research and development data on checked baggage. This data will be used to refine the system to enhance the detection capability and reduce the false alarm rate. Operational tests of other techniques were conducted at Dulles, Pittsburgh and Philadelphia International Airports and additional demonstrations are planned. (See Exhibit 15)

International Activities - Due to the worldwide threat of criminal activities directed toward the civil air transportation system, U.S. Government and industry representatives continued their efforts to seek implementation of effective civil aviation security programs by all nations.

Many governments have developed and implemented such programs and the results are reflected in worldwide hijacking statistics. During 1970 and 1971, there were 141 hijacking attempts worldwide; whereas, in 1974 and 1975, this figure was reduced to 51. During 1976, there was a total of 18.

There is, however, a growing concern with the menace of international terrorism. Although the number of hijackings has decreased dramatically, fatalities and injuries attributable to acts of sabotage, or other criminal attacks, are on the increase. During the period 1970-1971, when hijackings were at their peak, crimes against civil aviation resulted in 123 deaths and 41 injuries worldwide. However, during 1974-1975, there were 258 individuals killed and 221 injured. In 1976 alone, there were 227 deaths and over 200 injuries.

In September, the President approved an International Air Transportation Policy of the United States. This Policy, recommended by a Task Force chaired by the Departments of Transportation and State, represents a comprehensive statement of United States policy and objectives in international air transportation. This statement of policy guidance includes recognition that there has been substantial improvement in aviation security measures throughout the world since 1970 resulting in increased protection of civil aviation and its users from criminal acts that threaten their safety. Nevertheless, the policy indicates the United States supports and seeks adoption by the International Civil Aviation Organization (ICAO) of even stronger security Standards and Recommended Practices, and that the United States will take steps determined to be necessary to protect its citizens and commercial aircraft if it is not possible to reach ICAO agreement.

International organizations such as the International Air Transport Association (IATA), International Criminal Police Organization (INTERPOL), European Civil Aviation Conference (ECAC), and ICAO are continuing their collective efforts to achieve common and high security standards and assure close cooperation between aviation security forces and law enforcement entities in countries throughout the world.

During the last six months of 1976, the Governments of Australia, Canada and Mexico adopted measures to require certain security precautions to be observed by all foreign air carriers operating into their country. The security procedures adopted by these countries are substantially the same as those required by the U.S. for U.S. air carriers and for foreign air carriers operating scheduled passenger operations to, from or within the U.S. These actions are indicative of the worldwide effort to ensure that travel on all air carriers is safe and secure from unlawful acts.

- o International Incidents - Several international criminal incidents involved U.S. citizens and had a direct impact on the safety of U.S. citizens abroad. Three major incidents are briefly described below:

- On June 27, an Air France aircraft carrying 250 passengers, including 13 Americans, was hijacked en route from Athens, Greece, to Paris, France. After a stop in Libya, the hijacked aircraft landed in Entebbe, Uganda, where the hostages were held in an airport terminal building. After releasing approximately 150 hostages, the remaining 100 hostages were rescued in a dramatic raid by Israeli commandos on July 4. The hijackers had demanded the release of 53 captive terrorists being held in Israel, France, West Germany, Kenya, and Switzerland. The incident sparked worldwide debate including the introduction of resolutions, both supporting and condemning the Israeli raid, in the United Nations Security Council.
- On August 11, a month after the Entebbe raid, a terrorist attack at Yesilkoy Airport in Istanbul, Turkey, resulted in the deaths of four innocent civilians, including a member of the United States Senate staff. At least 24 other persons, including two Americans, were injured when the terrorists set off explosives and fired on boarding passengers with machine guns. This incident pointed up again the critical need for adequate security measures at international airports, particularly in transit facilities. The captured terrorists were identified as members of the Popular Front for the Liberation

of Palestine and they indicated Libya had financed their operation. This incident also produced resolutions in the U.S. Congress condemning the attack and urging the President to use and expand the sanction authorities provided in the Anti-hijacking Act of 1974.

Following the attack at Istanbul, the Israeli Government submitted a proposal of minimum security standards to ICAO for consideration and possible inclusion in Security Annex 17 to the Convention on International Civil Aviation. After review of the proposals by the ICAO Committee on Unlawful Interference, it appears that Annex 17 may be revised to include procedures for development of air carrier contingency/emergency plans and for taking precautions to control transfer and transit passengers and baggage.

- On October 6 an in-flight bomb explosion caused the crash of a Cuban aircraft a few miles off the coast of Barbados. Seventy-three passengers and crewmembers were killed. Shortly after the crash, Prime Minister Castro renounced the 1973 hijacking agreement with the U.S. to protest what he claimed was American involvement in the crash. The Cuban renouncement means the agreement will terminate in April 1977. The agreement contributed to the success of the U.S. anti-hijacking program and, hopefully, it will be preserved. Nevertheless, the comprehensive U.S. airport and air carrier security measures in place are believed to be capable of assuring the continued effectiveness of the U.S. anti-hijacking program.
- o Foreign Technical Assistance - In addition to multi-lateral efforts such as those indicated above, FAA continues to pursue a bilateral program of technical assistance and exchange of information. These activities include the formation of technical teams to provide advice and assistance, upon request, to foreign nations in development and/or improvement of civil aviation security programs. This is funded through a recent Interagency Agreement with the Law Enforcement Assistance Administration which provides funds for visits to a limited number of countries. At the request of the Governments of Egypt and Morocco, a team visited the two countries

and conducted airport security surveys and provided written reports which included suggestions for security improvements. The team also provided technical assistance and training on civil aviation security procedures.

Also available upon request are in-depth briefings on all aspects of civil aviation security for foreign aviation and law enforcement officials. Officials from 62 countries have been provided these technical briefings. In addition, 167 representatives of 47 foreign nations have attended the FAA-sponsored Aviation Security Training Course at the Transportation Safety Institute. Attendance of approximately 30 of these students was funded under another FAA/LEAA Agreement. Also, a number of audio-visual training presentations have been developed and made available to many officials of foreign airlines and governments.  
(See Exhibit 16)

## VII. COMPLIANCE AND ENFORCEMENT

The Civil Aviation Security Program is implemented through a series of Federal Aviation Regulations and, as with any laws, the regulations are subject to both inadvertent and deliberate violations. The FAA approach is to prevent violations, to the greatest extent possible, by fostering an atmosphere of voluntary compliance and cooperative actions to promptly correct any deficiencies and weaknesses detected.

Nevertheless, there are occasional incidents involving failures to comply. These are investigated and appropriate corrective actions taken, which may include issuance of Warnings, Letter of Correction, or in more serious cases, the assessment of civil penalties.

During 1976, 901 investigations were completed involving alleged violations of FAA security regulations by airports, U.S. and foreign air carriers, and by passengers. One hundred and four cases resulted in payments of civil penalties amounting to \$57,550; 627 were closed with administrative corrective action, including 411 Warnings issued to air carriers and airport operators. In 170 cases, the alleged violations were not substantiated and no enforcement actions were taken.  
(See Exhibit 17)



VIII. OUTLOOK

There has been substantial improvement in security measures throughout the world since 1970 resulting in increased protection of civil aviation and its users from criminal acts that threaten their safety. Nevertheless, the possibility remains that individuals or groups will try to exploit the air transportation system for their own ends. The continuing goal is to provide safe and secure travel on all air carriers. This goal can, and will, be accomplished through continued international cooperation and combined government-industry efforts.

A change to FAR 107, Airport Security, is under consideration to provide greater flexibility for airport operators to achieve a broader level of law enforcement protection at airports and to gain better utilization of assigned officers. The change under consideration would also contain a provision prohibiting the introduction of unauthorized weapons and explosives into airports. It is hoped that this provision, coupled with a public education program, will reduce the continuing large quantity of weapons brought to airports and detected in the passenger screening process.

In spite of the unfortunate hijacking in September, it is believed that current security measures applied by the aviation community are affording air travelers a level of safety and security unmatched in the world. The challenge remains to seek ways to improve the system and with the continued teamwork within the aviation community this challenge will be met.

# ***Civil Aviation Security***

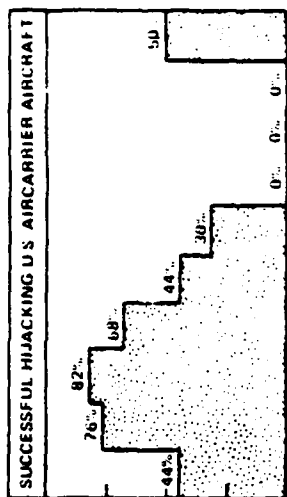
## ***The Threat to U.S. Aviation***

1961-7	1968	1969	1970	1971	1972	1973	1974	1975	1976
HIJACKINGS 12	22	40	27	27	31	2	7	12	4
EXPLOSIONS:									
AIRCRAFT 2	1	1	2	1	1	2	3	2	2
AIRPORTS					2	2	4	4	2
EXPLOSIVE									
DEVICES FOUND:									
AIRCRAFT				1	2	2	1	1	1
AIRPORTS				5	5	3	11	5	3
BOMB THREATS TO:									
AIRCRAFT		400	601	1145	2156	1383	1453	1853	1950
AIRPORTS				212	288	239	387	449	1036

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1/1/77

EXHIBIT 1

## Goal 2 - Reduce Aviation Security Incidents to an Absolute Minimum



DATE	AIRLINE/FLY AIRCRAFT	NUMBER ABANDONED	FLIGHT UNIQUE	DESTINATION	REMARKS
3-20-76	NA-700/B-222	4	Sacramento, CA	None	Unknown
9-17-74	EA-119/DK-9	100	New York NY	British MASS	\$10,000.00 donation
1-27-76	NA-700/B-222	6	Pompano Beach FL	None	Unknown
1-12-76	EA-119/DK-9	60	Atlanta GA	Philadelphia PA	None of help on ground problems
3-27-76	EQ-011/Twin Otter	2	Hyannis MASS	New Haven CT	Unknown
4-26-76	UA-744/B-222	87	Spring NC	Newark NJ	Unknown
5-16-76	UA-680/B-222	6	El Paso OR	San Francisco LA	Unknown
6-16-76	CO-680/B-222	6	San Jose CA	None	Unknown
9	NA-700/B-222	92	New York NY	Chicago	Unknown
11-23-76	UA-700/DK-9	2	San Antonio TX	Chicago	Unknown

**THE UNIVERSITY OF CHICAGO**

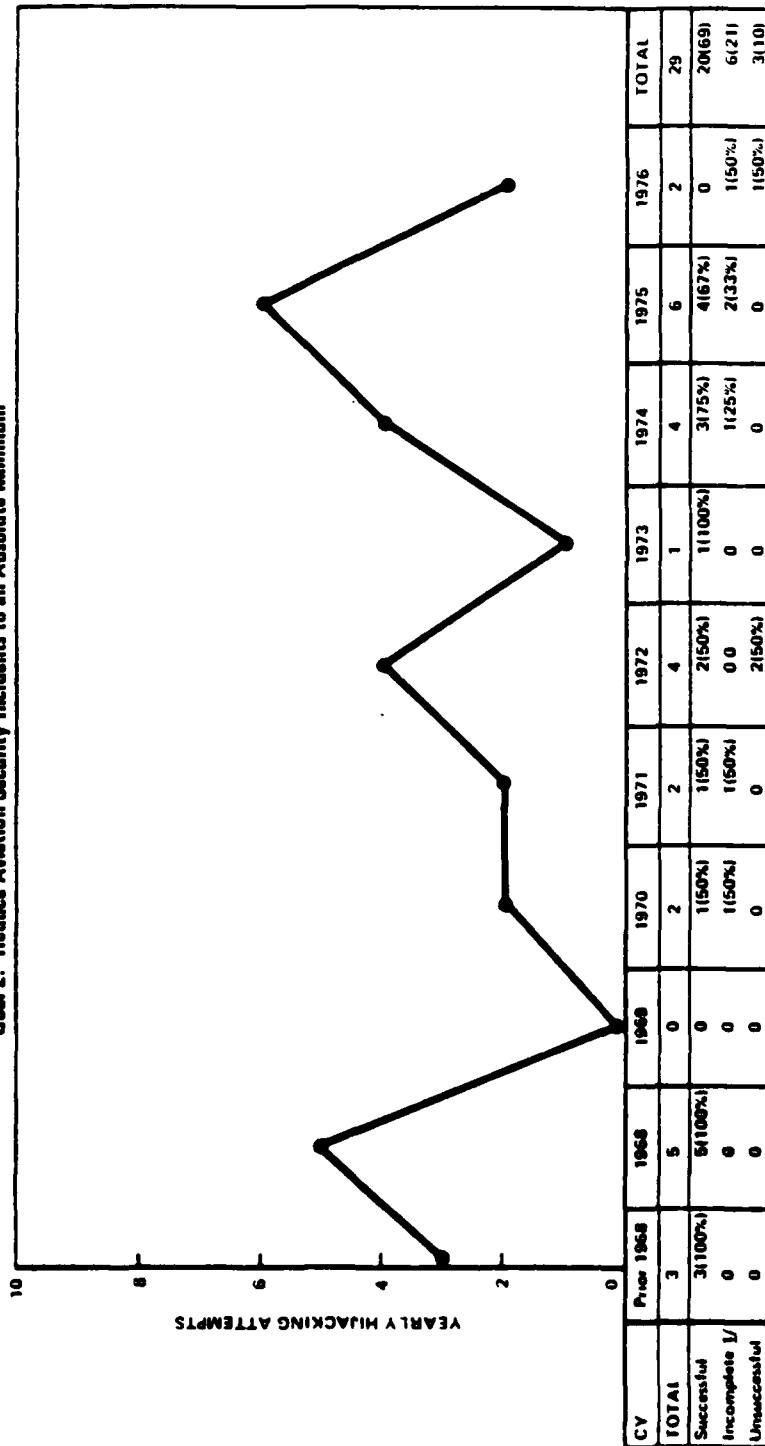
Updated by ACS  
Source ACS 20

Department of Transportation  
Federal Aviation Administration

Issued 2/1/77  
Updated Bi Annually  
As Of 1/1/77

# HIJACKING ATTEMPTS ON U.S. GENERAL AVIATION AIRCRAFT

Goal 2: Reduce Aviation Security Incidents to an Absolute Minimum



GENERAL AVIATION HIJACKING ATTEMPTS SINCE JANUARY 1, 1975									
DATE	FLIGHT	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER	NUMBER
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1
10/1/75	ALBANY	1	1	1	1	1	1	1	1

1/ Hijacking in which hijacker is apprehended/ended during hijacking or as a result of "hot pursuit"

Updated By ACS  
Source. ACS 20

Department of Transportation  
Federal Aviation Administration

Issued 2/1/77  
Updated Bi Annually  
As Of 1/1/77

# HIJACKING ATTEMPTS ON U.S. AND FOREIGN AIRCRAFT

Goal 2: Reduce Aviation Security Incidents to an Absolute Minimum

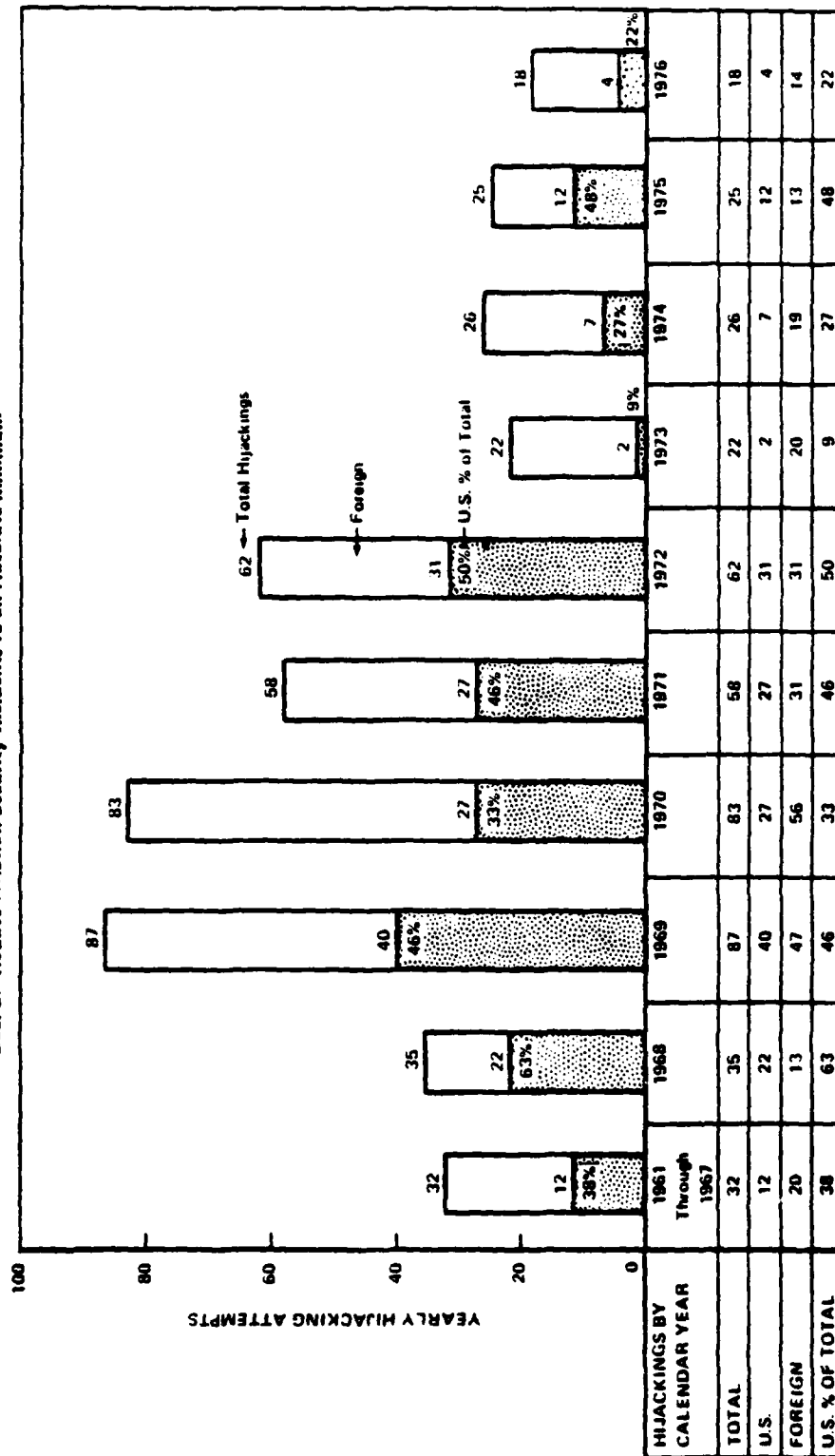


EXHIBIT 4

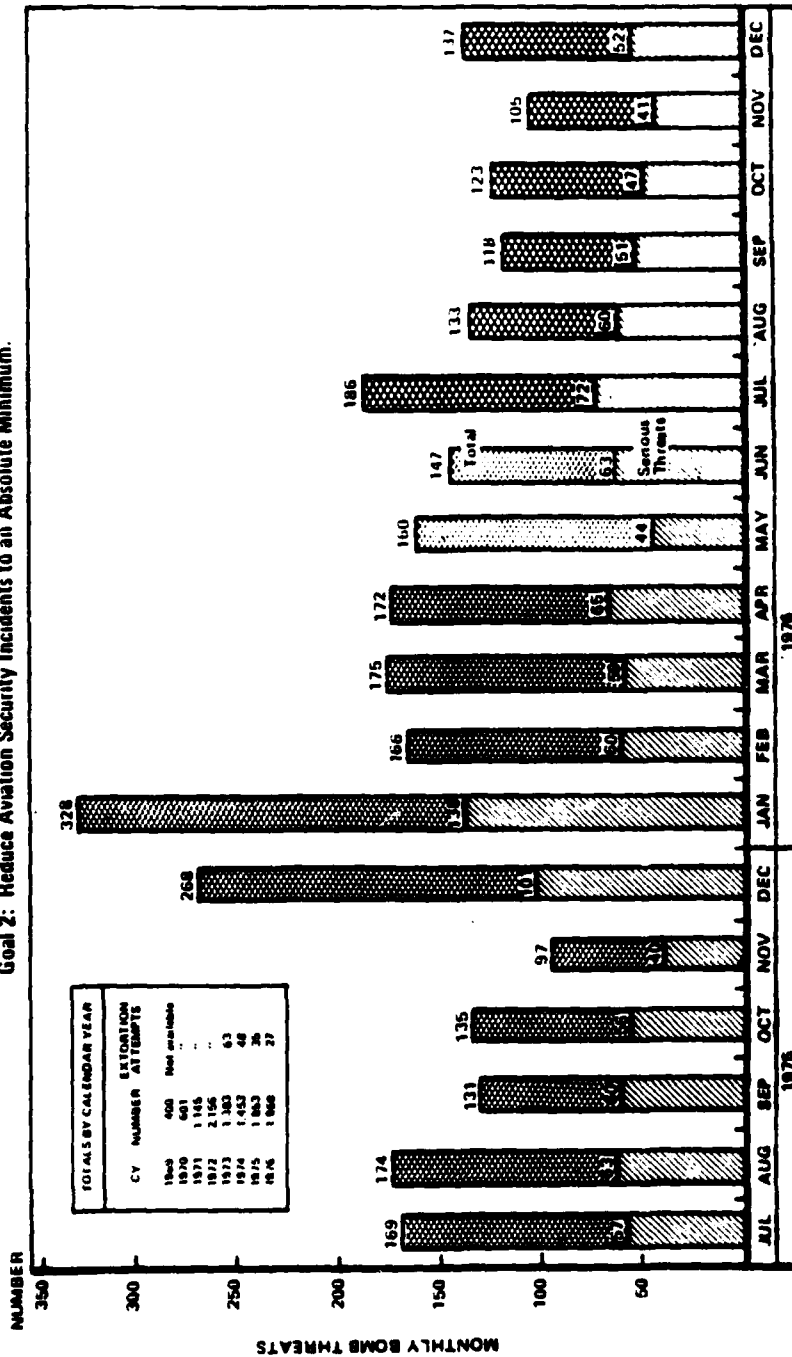
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Source: ACS-20

Issued: 2/1/77  
Updated: Monthly  
At: 01 1/1/77

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

# BOMB THREATS AGAINST U.S. AIRCRAFT & FOREIGN AIRCRAFT IN THE U.S.

Goal 2: Reduce Aviation Security Incidents to an Absolute Minimum.



Analysis: The significant increase shown for December 1976 and January 1977 is the result of an explosion at LaGuardia Airport on December 29, 1976. Threats have been relatively consistent in the other months.

- A statement is considered a serious threat if one of the following occurs:
1. It is directed against a particular aircraft or flight.
  2. It is not possible to immediately determine if it is made in a joking manner.
  3. It results in inconvenience to other passengers.
  4. It results in a search or otherwise disrupts airline operations.

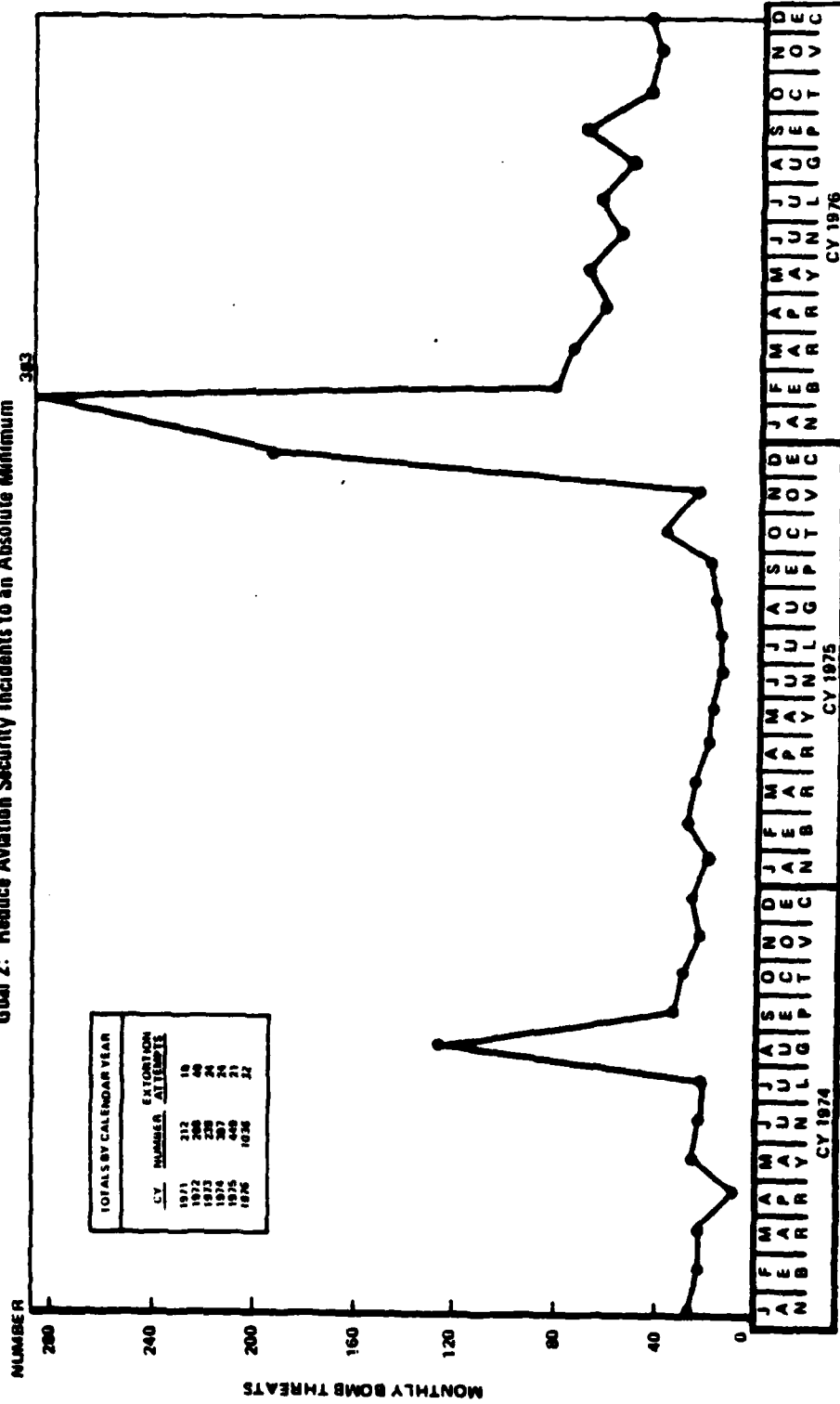
Updated By: ACS  
Source: ACS 20

Issued: 2/1/77  
Updated: Monthly  
As Of: 1/1/77

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

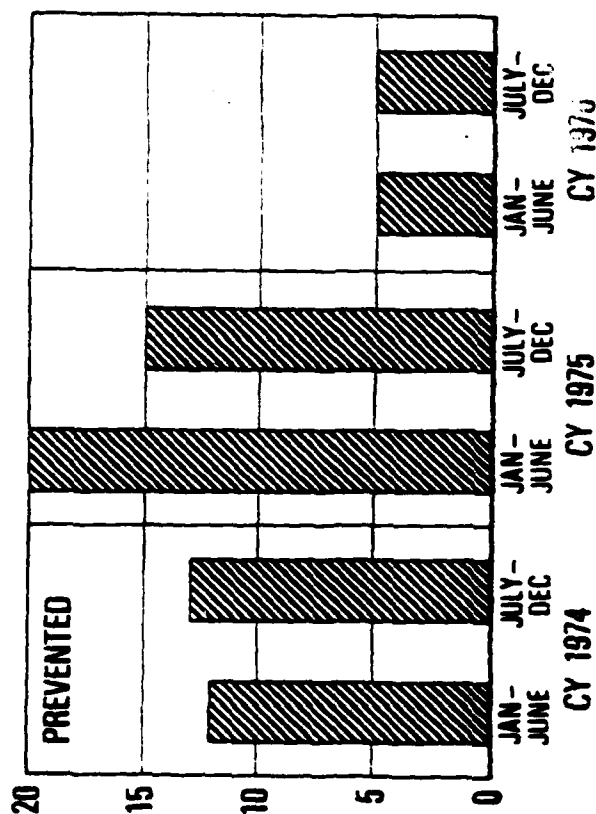
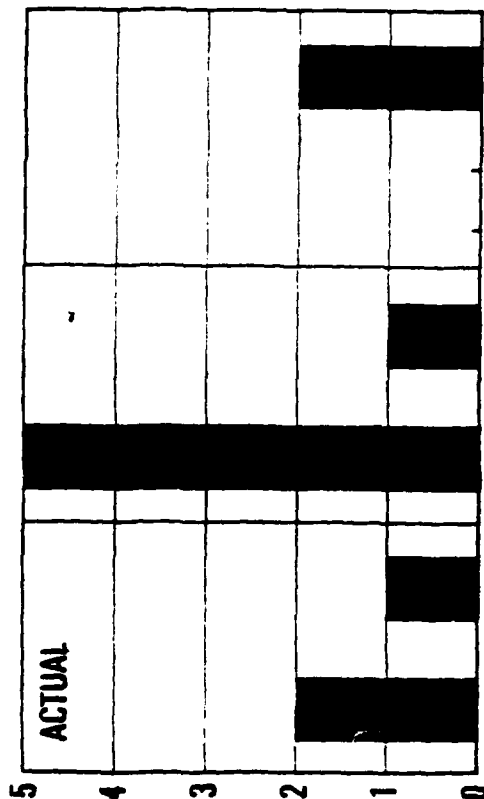
# BOMB THREATS AGAINST U.S. AIRPORTS

Goal 2: Reduce Aviation Security Incidents to an Absolute Minimum



Analysis: The significant increases in threats in August 1974 and December 1975 and January 1976 are the result of explosions at Los Angeles International Airport on August 6, 1974, and LaGuardia Airport on December 29, 1975.

# PREVENTED ATTEMPTS & ACTUAL HIJACKINGS (U.S. AIR CARRIER AIRCRAFT)



**PREVENTED ATTEMPTS**  
INCIDENTS IN WHICH IT APPEARED  
THE INDIVIDUALS INVOLVED INTENDED  
TO HIJACK AN AIRCRAFT BUT WERE  
PREVENTED FROM DOING SO BY  
SECURITY PROCEDURES.

MEANS OF ACCESS - POINT OF DETECTION			
	1974	1975	1976
SCREENING POINT	13	22	10
AIR OPERATIONS AREA	4	9	1
TERMINAL	4	4	1
OTHER	7	6	0

WEAPONS SUMMARY							
		1974		1975		1976	
		ALLEGED	REAL	ALLEGED	REAL	ALLEGED	REAL
FIREARM		2	16	1	22	0	11
EXPLOSIVE DEVICE		2	1	0	0	1	0
OTHER		0	6	0	13	0	0



# **CIVIL AVIATION SECURITY WEAPON DETECTION DEVICES**

<u>TYPE</u>	<u>BASIC CHARACTERISTICS</u>	<u>MANUFACTURER</u>	<u>UNITS</u>
<b>WALK-THRU ACTIVE</b>	<b>CREATES AND MEASURES DEVIATIONS IN OWN ELECTRIC FIELD. DETECTS BOTH FERROUS AND NON-FERROUS METALS.</b>	<b>RENS</b>	<b>641</b>
		<b>INFINETICS</b>	<b>195</b>
		<b>METOR</b>	<b>131</b>
		<b>SOLCO</b>	<b>69</b>
		<b>WESTINGHOUSE</b>	<b>40</b>
		<b>SPERRY RAND</b>	<b>30</b>
		<b>SENTRIE</b>	<b>2</b>
		<b>TOTAL</b>	<b>1108</b>
<b>HAND-HELD ACTIVE</b>	<b>COMPARABLE TO WALK- THRU ACTIVE LIMITED EFFECTIVE RANGE.</b>	<b>RENS</b>	<b>230</b>
		<b>FEDERAL</b>	<b>250</b>
		<b>SOLCO</b>	<b>720</b>
		<b>TOTAL</b>	<b>1200</b>

**TOTAL — ALL TYPES — 2308**

ACS-200  
1/1/77

EXHIBIT 8

# **CIVIL AVIATION SECURITY**

## **X-RAY BAGGAGE INSPECTION SYSTEMS**

### **CHARACTERISTICS:**

SMALL DOSE X-RAY, INTENSIFY IMAGE ELECTRONICALLY,  
DISPLAY ON TV

### **OPERATING CRITERIA:**

MEET FDA/BRH AND STATE HEALTH STANDARDS  
DISTINGUISH 24 GAUGE WIRE

### **LIMITATIONS:**

DEPENDENT ON DILIGENCE OF OPERATORS, DEMANDS  
CONSTANT ATTENTION AND ABILITY TO QUICKLY  
RECOGNIZE DANGEROUS ARTICLE

### **SYSTEMS IN USE:**

AMERICAN SCIENCE AND ENGINEERING	73
ASTROPHYSICS	160
BENDIX	86
DENNIS & MILLER	35
PHILIPS ELECTRONIC INSTRUMENTS	80
NEW SECURITY CONCEPTS	20
<b>TOTAL:</b>	<b><u>454</u></b>

ACS-200

1/1/77

EXHIBIT 9

# CIVIL AVIATION SECURITY

## AIRLINE PASSENGER SCREENING RESULTS

### 1976

<u>PERSONS SCREENED (MILLIONS)</u>	<u>JAN--JUNE</u>	<u>JULY--DEC</u>
	191.1	222.5

#### WEAPONS DETECTED

##### FIREARMS

- (1) HANDGUNS
- (2) LONG GUNS
- (3) OTHER

##### EXPLOSIVE/INCENDIARY DEVICES

2840	1096	
1054	859	
101	35	
1685	202	
7	1	

#### PERSONS ARRESTED

##### FOR CARRIAGE OF FIREARMS/EXPLOSIVES FOR GIVING FALSE INFORMATION

422	462	
119	37	

#### OTHER OFFENSES DETECTED

##### NARCOTICS

- ILLEGAL ALIENS
- OTHER

176	156	
382	416	
734	415	

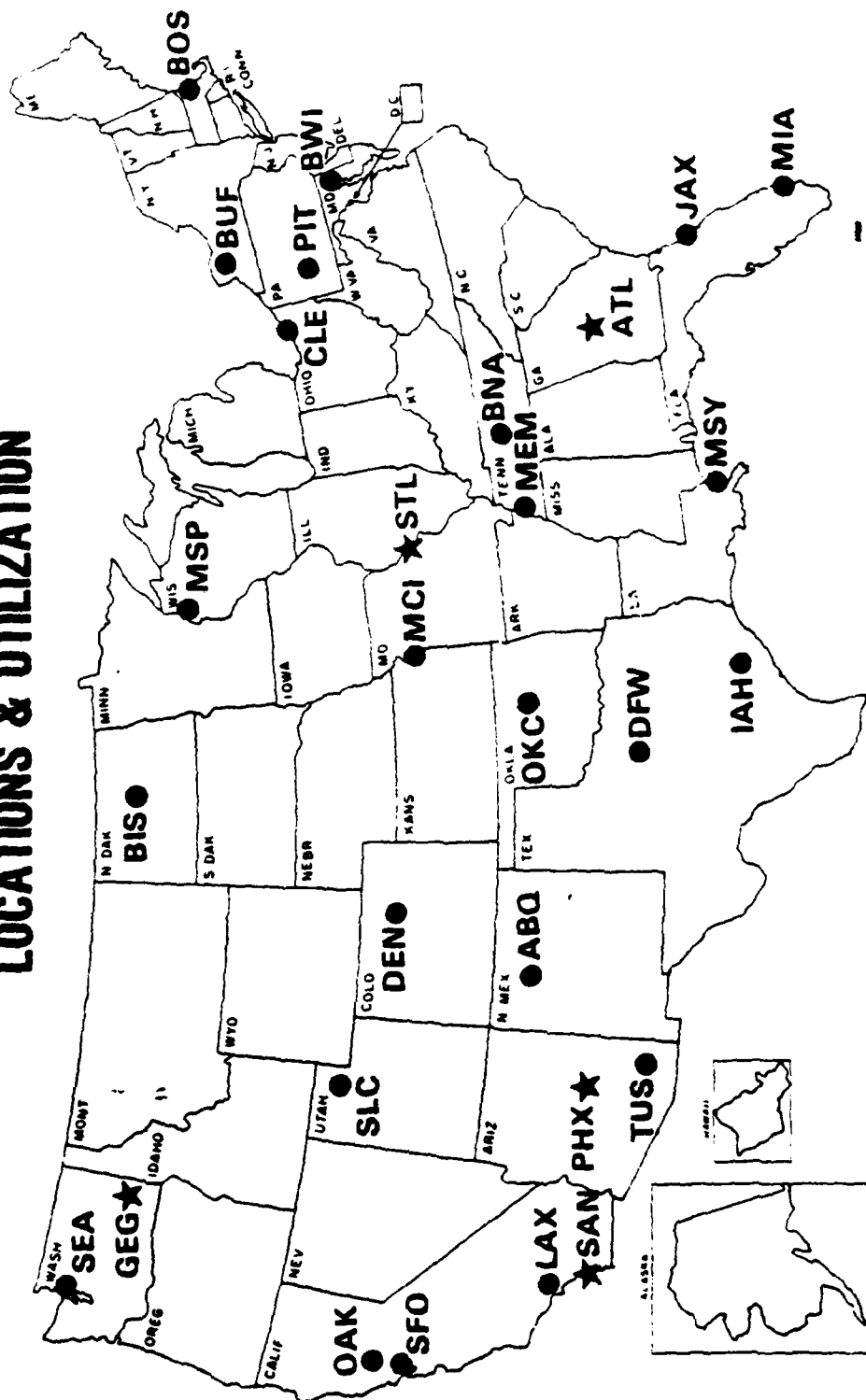
SOURCE -- MONTHLY REPORTS OF PASSENGER  
SCREENING ACTIVITIES AT  
U.S. AIRPORTS

# CIVIL AVIATION SECURITY

	<u>U.S.</u>	<u>FOREIGN</u>	<u>TOTAL</u>
CARRIERS	35	69	104
AIRPORTS	450	170 *	620
AIRCRAFT	2,600	—	—
FLIGHTS PER DAY	14,500	500	15,000
PASSENGERS PER DAY	550,000	35,000	585,000
CARRY-ON ITEMS PER DAY	750,000	50,000	800,000

\* FOREIGN AIRPORTS SERVED BY U.S. CARRIER AND/OR FINAL DEPARTURE  
POINT FOR FOREIGN CARRIER FLIGHTS TO THE U.S.

# FAA SPONSORED EXPLOSIVE DETECTION K9 TEAMS LOCATIONS & UTILIZATION



TOTAL AIRCRAFT & AIRPORT SEARCHES  
TOTAL EXPLOSIVE ITEMS DETECTED  
TOTAL MISSIONS IN LOCAL COMMUNITIES  
TOTAL EXPLOSIVE ITEMS DETECTED

1,348  
28  
2,036  
71

SJU★

AS OF: 1/1/77

★ REF = FUTURE LOCATIONS

## EXPLOSIVE DETECTION K9 TEAM EFFECTIVENESS

<u>AVERAGE SEARCH TIMES REQUIRED</u>	
AIRCRAFT .....	16 MINUTES
TERMINAL BUILDINGS .....	18 MINUTES
COIN OPERATED LOCKERS.....	15 MINUTES
VEHICLES .....	9 MINUTES
CARGO & BAGGAGE AREAS .....	18 MINUTES

REACTED TO EXPLOSIVE PLANTS -- 99.2%  
FALSE ALERTS -- 3.7%

SOURCE: FY 76 EVALUATIONS.

EXHIBIT 14

**CIVIL AVIATION SECURITY  
RESEARCH AND DEVELOPMENT  
CHECKED BAGGAGE EXPLOSIVE DETECTION**

**X-RAY ABSORPTION**

**PROTOTYPE CARRY-ON BAGGAGE SYSTEM TESTED**

**TWO UNITS DESIGNED FOR CHECKED BAGGAGE BEING BUILT**

- FIRST UNIT TESTED NOV 76
- SECOND UNIT AVAILABLE APRIL 77

**OPERATIONAL TEST SPRING 1977**

**THERMAL NEUTRON ACTIVATION**

**FEASIBILITY DEMONSTRATION COMPLETED JULY 31**

**AIRPORT OPERATIONAL TEST TO BE SCHEDULED**

**NUCLEAR MAGNETIC RESONANCE**

**EVALUATION OF LABORATORY MODEL TO BE COMPLETED FEBRUARY 1977**

**VAPOR DETECTION**

**TRANSPORTATION SYSTEMS CENTER EVALUATING ALL COMMERCIALLY AVAILABLE  
DETECTORS. RESULTS FEBRUARY 1977.**

ACS-200  
1/1/77

EXHIBIT 15

# **CIVIL AVIATION SECURITY FOREIGN TECHNICAL ASSISTANCE**

<b>ACTIONS</b> .....	<b>COUNTRIES PARTICIPATING</b> .....
• FAA TECHNICAL ASSISTANCE TEAM VISITS	16
• AVIATION/LAW ENFORCEMENT OFFICIALS BRIEFINGS	62
• TRAINING PROGRAMS:	
... TSI COURSE (STUDENTS)	47 (167)
-- ANTIHIJACKING TACTICS	25
.. GROUND EXPLOSIVE PROCEDURES	51
... INFLIGHT EXPLOSIVE PROCEDURES	67
• ANALYTICAL STUDIES DISTRIBUTION	13

ACS-20  
1/1/77  
EXHIBIT 16



U.S. AIR CARRIERS	1973	1974	1975	1976
WARNINGS ISSUED	-	-	329	270
LETTERS OF CORRECTION	152	124	128	110
NON ENFORCEMENT ACTIONS	66	36	63	108
CIVIL PENALTIES (AMOUNT)	43 (\$42,856)	58 (\$75,750)	56 (\$15,398)	84 (\$46,800)
INVESTIGATIONS CLOSED	261	218	576	572
INVESTIGATIONS PENDING				80

U.S. AIR CARRIERS	1973	1974	1975	1976
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INVESTIGATIONS CLOSED	261	218	576	572
INVESTIGATIONS PENDING				80

WARNINGS ISSUED	NO REGULATION EFFECTIVE UNTIL OCTOBER 1975	0	0
LETTERS OF CORRECTION		0	12
NON ENFORCEMENT ACTIONS		3	2
CIVIL PENALTIES (AMOUNT)		0	0
INVESTIGATIONS CLOSED		3	14
INVESTIGATIONS PENDING		<u>0</u>	<u>3</u>

WARNINGS ISSUED	NO REGULATION EFFECTIVE UNTIL OCTOBER 1975	0	0
LETTERS OF CORRECTION		0	12
NON ENFORCEMENT ACTIONS		3	2
CIVIL PENALTIES (AMOUNT)		0	0
INVESTIGATIONS CLOSED		3	14
INVESTIGATIONS PENDING		<u>0</u>	<u>3</u>

WARNINGS ISSUED	-	125	141
LETTERS OF CORRECTION	40	83	68
NON ENFORCEMENT ACTIONS	11	7	18
CIVIL PENALTIES (AMOUNT)	<u>1 (\$1,000)</u>	<u>14 (\$6,750)</u>	<u>19 (\$10,400)</u>
INVESTIGATIONS CLOSED	52	231	246
INVESTIGATIONS PENDING			26

WARNINGS ISSUED	-	125	141
LETTERS OF CORRECTION	40	83	68
NON ENFORCEMENT ACTIONS	11	7	18
CIVIL PENALTIES (AMOUNT)	<u>1 (\$1,000)</u>	<u>14 (\$6,750)</u>	<u>19 (\$10,400)</u>
INVESTIGATIONS CLOSED	52	231	246
INVESTIGATIONS PENDING			26

ADMINISTRATIVE CORRECTIONS	1	27
NON ENFORCEMENT ACTIONS	2	41
CIVIL PENALTIES (AMOUNT)	1 (\$25)	1 (\$350)
INVESTIGATIONS CLOSED	4	69
INVESTIGATIONS PENDING		12

ADMINISTRATIVE CORRECTIONS	1	27
NON ENFORCEMENT ACTIONS	2	41
CIVIL PENALTIES (AMOUNT)	1 (\$25)	1 (\$350)
INVESTIGATIONS CLOSED	4	69
INVESTIGATIONS PENDING		12

ATE  
LME